# Cubietruck na eduroam mreži

Predstavljajući funkcionalnosti Cubietrucka u prethodnom članku [1] na jednoj ilustraciji smo prikazali Cubietruck u dometu  bežične mreže *eduroam* u Android okruženju. Pošto smo Cubietruck "debianizirali", možda imamo potrebu koristiti ga na mjestu gdje nema lokalne/žične mreže. Evo uputa kako to napraviti.

Za početak preko naredbenog retka provjerimo dostupnost paketa *wireless-tools* koji nam je potreban za daljnji rad.

```
# apt-get install wireless-tools
```

Ukoliko je instaliran skenirajmo naše mreže.

```
# iwlist scan
...wlan0     Scan completed :
 Cell 01 - Address: 1C:AF:F7:6B:28:CB
 ESSID:"eduroam"
 Mode:Managed
 Frequency:2.412 GHz (Channel 1)
 Quality:4/5  Signal level:-66 dBm  Noise level:-92 dBm
 IE: IEEE 802.11i/WPA2 Version 1
 Group Cipher : CCMP
 Pairwise Ciphers (1) : CCMP
 Authentication Suites (1) : 802.1x
 Preauthentication Supported
 Encryption key:on
 Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s
 12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s
 48 Mb/s; 54 Mb/s
 Cell 02 - Address: BC:F6:85:01:C5:4D
 ESSID:"eduroam"
 Mode:Managed
 Frequency:2.437 GHz (Channel 6)
 Quality:5/5  Signal level:-47 dBm  Noise level:-92 dBm
 IE: IEEE 802.11i/WPA2 Version 1
 Group Cipher : CCMP
 Pairwise Ciphers (1) : CCMP
 Authentication Suites (1) : 802.1x
 Preauthentication Supported
 Encryption key:on
 Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s
 12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s
 48 Mb/s; 54 Mb/s
....
```

Skeniranjem otkrivamo prisutnost *eduroam* mreže.



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Da bi pristupili  eduroam mreži trebamo imati podršku za WPA2 kao što vidimo iz skeniranja. Podršku instaliramo na jednostavan način.

```
# apt-get install wpasupplicant
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
 wpagui libengine-pkcs11-openssl...
```

Sugerira nam se *wpagui* paket koji može biti koristan ako koristimo grafičko sučelje.

```
# apt-get install wpagui
```

Sa http://installer.eduroam.hr *[2]/* preuzmemo Linux (različite distribucije) instalacijsku arhivu te je raspakiramo.

```
# gunzip -c eduroam_Linux_domena.hr_installer.tar.gz | tar xvf -
```

Napravimo u */etc* direktorij *eduroam*

```
# cd /etc
# mkdir eduroam
```

Vratimo se u direktorij gdje smo raspakirali *installer.*

```
# cd /home/drum/eduroam_Linux_domena.hr_installer/
root@cubie:/home/drum/eduroam_Linux_domena.hr_installer
# ls
eduroam_config    eduroam_domena.hr_CA.pem  INSTALL  README  wicd_example.conf  wpa_s
upplicant_example.conf
```

Skriptu *eduroam_config* smo već prije pokretali, koristimo dio izgeneriranih redaka eduroam konfiguracije kasnije u podešavanju *wpa_supplicant.conf*. Sada nas zanima put do certifikata *eduroam_domena.hr_CA.pem*. Kopiramo ga u za to predviđeni direktorij.

```
# cp eduroam_simet.hr_CA.pem /etc/eduroam
```

*Z*atim u /etc napravimo konfiguracijsku datoteku i odredimo prava pristupa.

```
/etc# nano wpa_supplicant.conf
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
network={
 ssid="eduroam"
 proto=RSN
 key_mgmt=WPA-EAP
 pairwise=CCMP
 auth_alg=OPEN
 eap=TTLS
 identity="ppero@domena.hr"
```



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```
 password="perinpasswd"
 ca_cert="/etc/eduroam/eduroam_domena.hr_CA.pem"
 subject_match="freeradius.domena.hr"
 phase2="auth=PAP"
}
# chmod 600 /etc/wpa_supplicant.conf
```

Za pristup mrežnom uređaju dodajemo našeg trenutnog korisnika u grupu *netdev* kojeg smo naveli u *wpa_supplicant.conf*.

```
#  adduser drum netdev
Adding user 'drum' to group 'netdev' ...
Adding user drum to group netdev
Done.
```

Nakon toga na dobro znanoj lokaciji */etc/network/interfaces* uredimo sadržaj na slijedeći način:

```
# interfaces(5) file used by ifup(8) and ifdown(8)
auto lo
iface lo inet loopback
auto eth0
allow-hotplug eth0
iface eth0 inet dhcp
#        hwaddress ether 00:01:43:ee:63:54 # if you want to set MAC manually
#        pre-
up /sbin/ifconfig eth0 mtu 3838 # setting MTU for DHCP, static just: mtu 3838
#auto wlan0
#allow-hotplug wlan0
#iface wlan0 inet dhcp
#    wpa-ssid SSID
#    wpa-psk xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
# to generate proper encrypted key: wpa_passphrase yourSSID yourpassword
allow-hotplug wlan0
iface wlan0 inet manual
wpa-roam /etc/wpa_supplicant.conf
iface wlan0 inet dhcp
```

U našem primjeru smo orginalne postavke za *wlan0* zakomentirali, a naše dodali na kraj konfiguracijske datoteke.

Ostaje na još ponovno pokretanje Cubietrucka.

```
#reboot
```

Poslije podizanja sustava kroz *wpa_GUI* provjerimo da li smo uspješno konfigurirali bežičnu mrežu *eduroam*.



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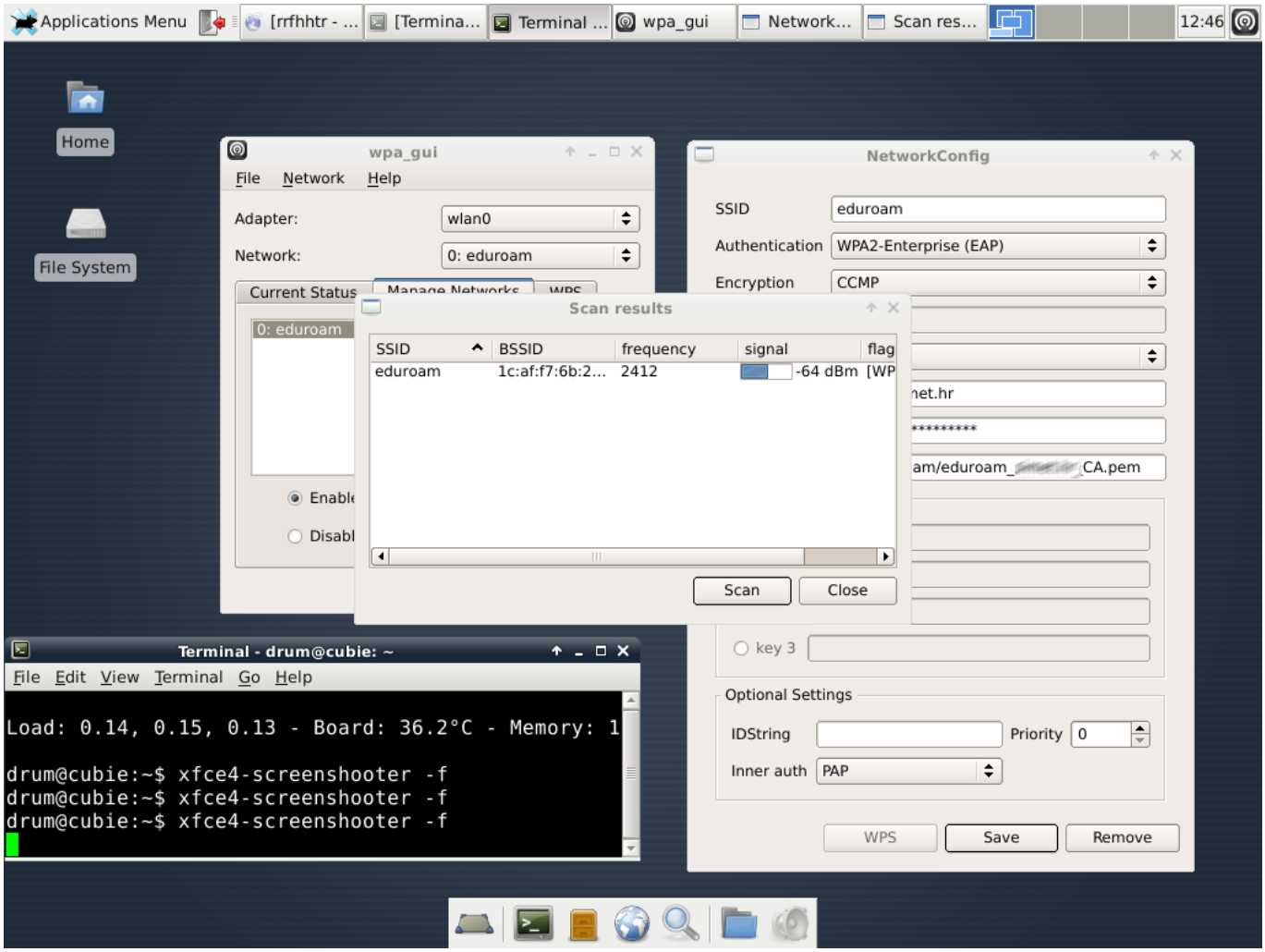




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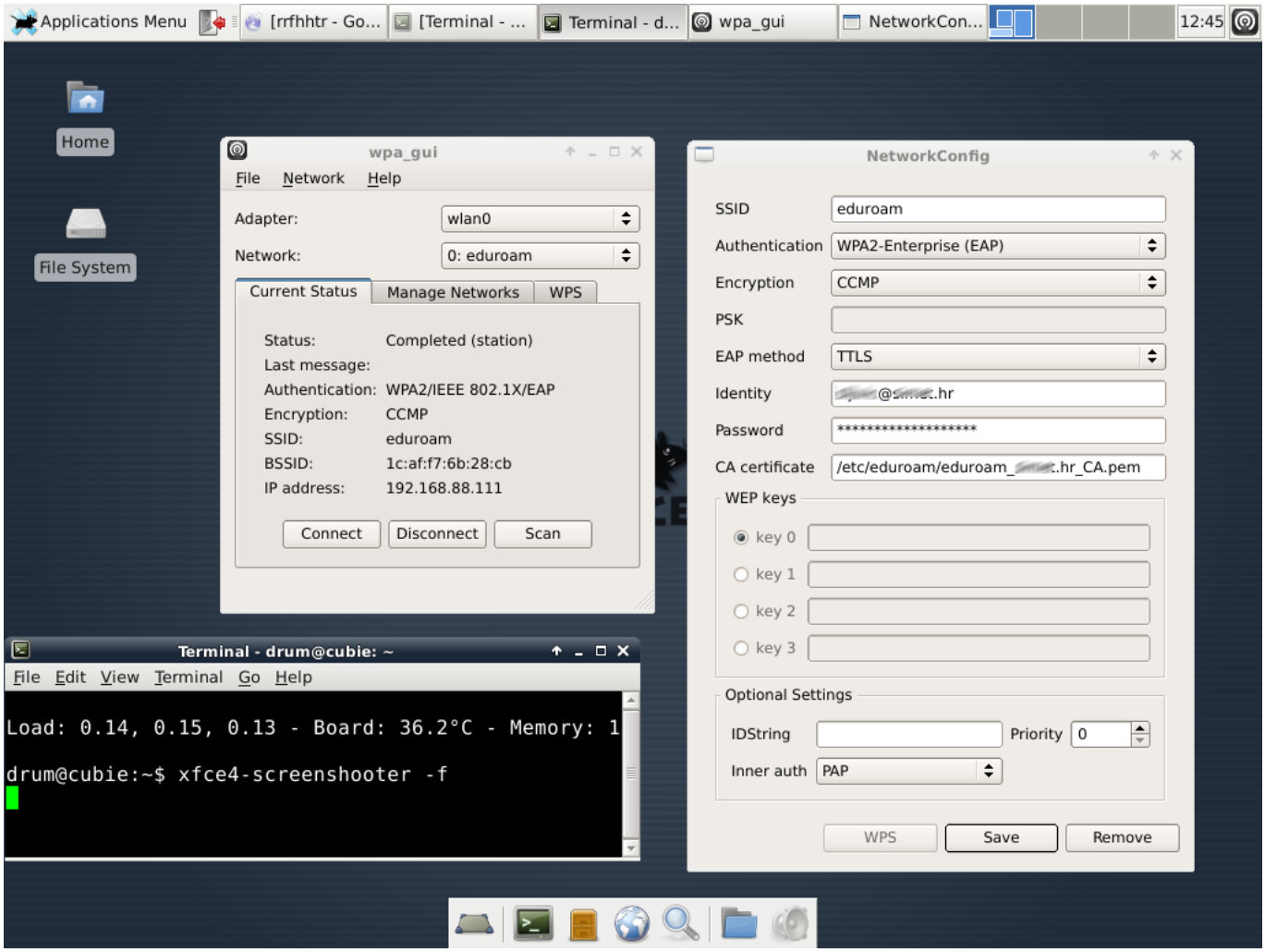




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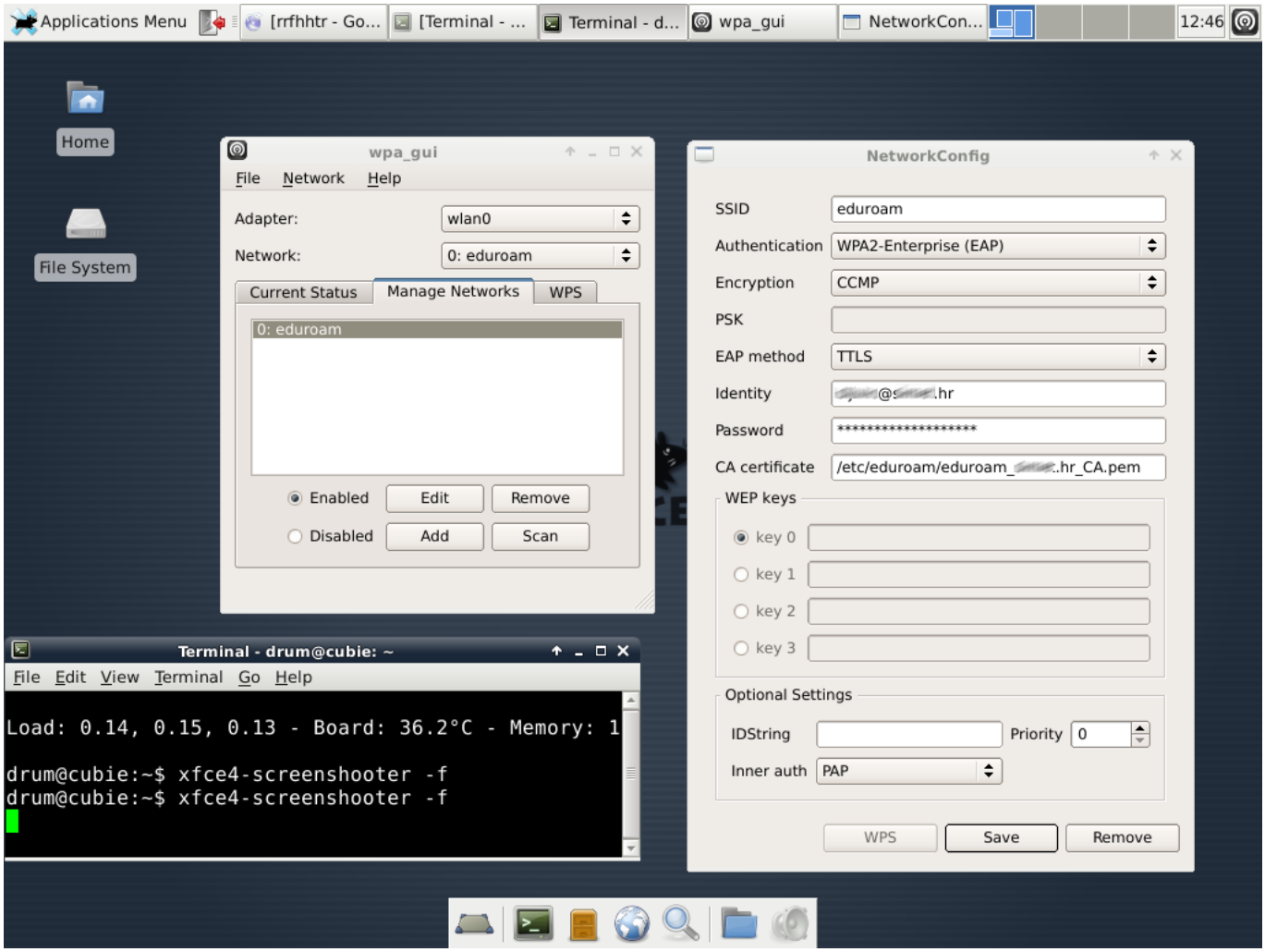


Dobili smo IP adresu *192.168.88.111*. Ukoliko se kroz *wpa_gui* napravi "*Disconnect*" pa ponovni "*Connect*" za dobivanje IP adrese se mora u terminalu pokrenuti naredba.

```
#dhclient -v wlan0
```

čet, 2014-11-13 13:35 - Goran Šljivić**Kuharice:** Linux [3]
**Kategorije:** Servisi [4]
**Vote:** 0

No votes yet

**Source URL:** https://sysportal.carnet.hr/node/1454?page=0

**Links**
[1] https://sysportal.carnet.hr/node/1417
[2] http://installer.eduroam.hr
[3] https://sysportal.carnet.hr/taxonomy/term/17



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[4] https://sysportal.carnet.hr/taxonomy/term/28



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